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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,185	03/28/2002	Wayne J. Myer	70254-346	4762
20915	7590	04/15/2005		
EXAMINER				
LUK, EMMANUEL S				
ART UNIT		PAPER NUMBER		
		1722		

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/063,185	MYER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Emmanuel S. Luk	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 14 January 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-64 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-64 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-24, 32, 33, and 41-64 are rejected under 35 U.S.C. 101 because the claims contain both an apparatus and method steps of using the apparatus. The claims direct to neither a “process” nor a “machine”, but rather embraces or overlaps two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. *Id.* at 1551.

Here, the claims contain line speed and the ratio of the gap in relation to said line speed. This is a process limitation and line speed itself is not a structural limitation of the apparatus that is necessary in apparatus claims. Therefore, the claims overlaps two different statutory classes of invention. See MPEP 2173.05(p).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-24, 32, 33, and 41-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite as it contains both apparatus and method steps of using that makes the claims ambiguous.

The claims contain both structural limitations of the apparatus and in addition limitations to the line speed in which the apparatus operates either by the limitation via the ratio or by actual line speed limitations. Thereby, the claims contain both apparatus and method steps of using limitations and the claims are indefinite.

The claims are also indefinite since it is unclear of the range in line speeds for determining the gap. The claims are not definite for one skilled in the art to determine what the subject matter is claimed, in this case the line speed since it is necessary to determine the gap which is also not specified.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-64 are rejected under 35 U.S.C. 102(b) as being anticipated by Beckwith (5622732).

Beckwith teaches an extruder (19) having an inlet (26) to receive the extrudate, an extrusion die having an annular die opening (16) forming an outlet, a ring (12), that functions as the choke ring, having an opening defined by an annular choke ring surface, the choke ring positioned relative to the extruder such that the annular die opening is received within the ring opening, the choke ring opening being concentric

about the longitudinal axis and positioned therefrom a second radial distance (Fig. 1), the difference between the second radial distance and first radial distance comprise a gap, Beckwith teaches a gap of 0.01 to 0.03 inches, or 0.254 to 0.762 mm. The choke ring of Beckwith is the same piece as the outer die lip. The inner portion (14) of the die ring forming the first radial distance from the longitudinal axis and the portion (12) formed by the choke ring/outer die lip forms the second radial distance from the longitudinal axis.

The size of the gap of the claimed invention is based upon the equation as specified in the equation in relation to the ratio ranges and line speed. The line speed of the specification is based upon 50 to 300 millimeters/second as specified in the specification. Inputting the range for the line speed into the equation as provided by the applicants allows for a gap size of 0.15 to 5 mm. Beckwith teaches a range of 0.254 to 0.762 mm, which is within the range. Additionally, applicant's dependent claims 2-4,14, 18-20, 26, 27, 35, 36, 44-46 and 54-56, have claim a gap that is within the range of the gap in Beckwith.

The line speed is a process limitation and does not provide structural limitation to the apparatus. The polymeric resin and blowing agent in the preamble of the claim is an intended use of the apparatus and does not provide structural limitation.

### **Response to Arguments**

6. Applicant's arguments filed 1/14/05 have been fully considered but they are not persuasive. The applicant's arguments have been considered, however, the line speed itself is not a structural limitation of an apparatus, it is a method step of using and whether an apparatus is capable of operating at that speed. The claim has no structure that can define the apparatus of producing the line speed. Defining the configuration of the gap is a structural limitation with a process limitation of the line speed is ambiguous in determining what is being claimed.

In regards to the Beckwith reference, applicants argue the placement of the choke opening with the die. The Beckwith reference has the choke ring of defining the die opening of the apparatus. It is not upstream of the die and the claimed invention merely states that the choke ring positioned such that the die opening is received within the choke ring opening as can be seen in the Beckwith reference.

The argument of the functionality between Beckwith and the applicant's invention is noted, however, the structural limitations of the apparatus are the issue of the rejection and not the use of the apparatus.

### **Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ben Utech can be reached on (571) 272-1137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EL

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